

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (currently amended): ~~Constellation~~ A constellation information transmitting arrangement (~~BiGi\_TA~~) for use in a multi-carrier transmitter (TX) or a multi-carrier receiver (~~RX~~) of a multi-carrier system, said arrangement (~~BiGi\_TA~~) comprising:

means (~~BiGi\_PROD~~) for producing carrier constellation information indicative for constellations where respective carriers will be modulated with by said multi-carrier transmitter (~~TX~~); and

means (~~BiGi\_TX~~) for transmitting said carrier constellation information,

wherein ~~CHARACTERISED IN THAT~~ said means (~~BiGi\_PROD~~) for producing carrier constellation information is adapted to produce for at least one respective carrier subset (~~SUBSET1, SUBSET2, ..., SUBSET8~~) a set of parameter values (~~B1, G1; B2, G2; ..., B8, G8~~) from which constellations of all carriers ( ~~$f_0 \dots f_{511}, f_{512} \dots f_{1023}, \dots, f_{3584} \dots f_{4095}$~~ ) in said at least one respective carrier subset (~~SUBSET1; SUBSET2; ..., SUBSET8~~) can be retrieved through interpolation.

2. (currently amended): ~~Arrangement~~ (~~BiGi\_TA~~) The constellation information transmitting arrangement according to claim 1,

wherein~~CHARACTERISED IN THAT~~ said set of parameter values (~~B1, G1; B2, G2; ...; B8, G8~~) consists of a first number of bits (~~B1; B2; ...; B8~~) and a first gain value (~~G1; G2; ...; G8~~).

3. (currently amended): ~~Arrangement (BiGi\_TA)~~The constellation information transmitting arrangement according to claim 1,

wherein~~CHARACTERISED IN THAT~~ said set of parameter values consists of a first number of bits, a first gain value and a second gain value.

4. (currently amended): ~~Arrangement (BiGi\_TA)~~The constellation information transmitting arrangement according to claim 3,

wherein~~CHARACTERISED IN THAT~~ said constellations of all carriers in said at least one respective carrier subset (~~SUBSET1; SUBSET2; ...; SUBSET8~~) can be retrieved through linear interpolation.

5. (currently amended): ~~Arrangement (BiGi\_TA)~~The constellation information transmitting arrangement according to claim 1,

~~CHARACTERISED IN THAT said arrangement (BiGi\_TA) further contains~~  
comprising:

means to produce a description of said at least one respective carrier subset (~~SUBSET1; SUBSET2; ...; SUBSET8~~); and

means to transmit said description of said at least one respective carrier subset (~~SUBSET1; SUBSET2; ...; SUBSET8~~).

6. (currently amended): ~~Arrangement (BiGi\_TA)~~ The constellation information transmitting arrangement according to claim 1,

wherein ~~CHARACTERISED IN THAT~~ N carriers are divided into M subsets of N/M carriers with successive carrier indices, N being a first integer number representing a total amount of carriers used in said multi-carrier system, and M representing a second integer number whereby N is an integer multiple of M.

7. (currently amended): ~~Constellation~~ A constellation information receiving arrangement ~~(BiGi\_RA)~~ for use in a multi-carrier transmitter (TX) or a multi-carrier receiver ~~(RX)~~ of a multi-carrier system, said arrangement ~~(BiGi\_RA)~~ comprising:

means ~~(BiGi\_RX)~~ for receiving carrier constellation information indicative for constellations where respective carriers will be modulated with by said multi-carrier transmitter ~~(TX)~~; and

means ~~(BiGi\_DET)~~ for determining said constellations from said carrier constellation information,

wherein ~~CHARACTERISED IN THAT~~ said means ~~(BiGi\_DET)~~ for determining said constellations ~~comprise~~ comprises

interpolating means adapted to retrieve constellations of all carriers ~~( $f_0 \dots f_{511}, f_{512} \dots f_{1023}, \dots, f_{3584} \dots f_{4095}$ )~~ in at least one respective carrier subset ~~(SUBSET1; SUBSET2; ...; SUBSET8)~~ from a respective set of parameter values ~~(B1, G1; B2, G2; ...; B8, G8)~~ that forms part of said carrier constellation information.

8. (currently amended): ~~Arrangement (BiGi-RA)~~ The constellation information receiving arrangement according to claim 7,

wherein ~~CHARACTERISED IN THAT~~ said set of parameter values (~~B1, G1; B2, G2; ...; B8, G8~~) consists of a first number of bits (~~B1; B2; ...; B8~~) and a first gain value (~~G1; G2; ...; G8~~) and in that said interpolating means is adapted to determine for each carrier (~~f<sub>0</sub> ... f<sub>511</sub>, f<sub>512</sub> ... f<sub>1023</sub>; ...; f<sub>3584</sub> ... f<sub>4095</sub>~~) in said at least one respective carrier subset (~~SUBSET1; SUBSET2; ...; SUBSET8~~) a number of bits equal to said first number (~~B1; B2; ...; B8~~) and a gain value equal to said first gain value (~~G1; G2; ...; G8~~).

9. (currently amended): ~~Arrangement (BiGi-RA)~~ The constellation information receiving arrangement according to claim 7,

wherein ~~CHARACTERISED IN THAT~~ said set of parameter values consists of a first number of bits, a first gain value and a second gain value, and ~~in that~~

wherein said interpolating means is adapted to determine for each carrier in said at least one respective carrier subset a number of bits equal to said first number of bits and a gain value through linear interpolation between said first gain value and said second gain value.

10. (currently amended): ~~Arrangement (BiGi-RA)~~ The constellation information receiving according to claim 7,

~~CHARACTERISED IN THAT said arrangement (BiGi-RA)~~ further contains comprising:

means to receive a description of said at least one respective carrier subset ~~(SUBSET1;~~  
~~SUBSET2; ...; SUBSET8);~~ and

means to interpret said description of said at least one respective carrier subset  
~~(SUBSET1; SUBSET2; ...; SUBSET8).~~

11. (new): The constellation information transmitting arrangement according to claim 2,  
wherein said interpolation retrieves the first number of bits and the gain value.

12. (new): The constellation information transmitting arrangement according to claim 7,  
wherein said interpolation retrieves a number of bits and a gain value of the parameter of values.